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## PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
(PCT Article 36 and Rule 70)

10/540166

Applicant's or agent's file reference 0271	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IB 02/05462	International filing date (day/month/year) 18.12.2002	Priority date (day/month/year) 18.12.2002
International Patent Classification (IPC) or both national classification and IPC A23F3/14		
Applicant COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
  
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
  - This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.
  
3. This report contains indications relating to the following items:
  - I  Basis of the opinion
  - II  Priority
  - III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV  Lack of unity of invention
  - V  Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI  Certain documents cited
  - VII  Certain defects in the international application
  - VIII  Certain observations on the international application

Date of submission of the demand 17.07.2004	Date of completion of this report 24.09.2004
Name and mailing address of the International preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Krajewski, D Telephone No. +49 89 2399-8472



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/IB 02/05462

## I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

### Description, Pages

1-5 as originally filed

### Claims, Numbers

1-14 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/IB 02/05462

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	1-14
	No: Claims	
Inventive step (IS)	Yes: Claims	1-14
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-14
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/IB 02/05462

Ad V.:

1. Reference is made to the following document/s:  
D1: DATABASE WPI Section Ch, Week 199124 Derwent Publications Ltd., London, GB; Class D13, AN 1991-171747 XP002251682 & CN 1 045 686 A (ZHEJIANG AGRIC UNIV) 3 October 1990 (1990-10-03)  
D2: US 2001/033880 A1 (PATEL MUSHTAQ ET AL) 25 October 2001 (2001-10-25)  
D3: PATENT ABSTRACTS OF JAPAN vol. 1995, no. 06, 31 July 1995 (1995-07-31) & JP 07 067530 A (NIKKEN FOOD KK), 14 March 1995 (1995-03-14)  
D4: WO 97/18720 A (DIBAGGIO ANTHONY ;SHEPARD THOMAS R (US)) 29 May 1997 (1997-05-29)  
D5: US-B-6 348 2241 (PATIL RAJESH HANAMANTAGOUDA ET AL) 19 February 2002 (2002-02-19)
2. The present application relates to a process for the prevention of development of pacha taint in CTC teas (claims 1-14). Pacha taint is an off flavour resulting from lipid degradation in these teas during storage.
3. Novelty  
The process of the present invention is not disclosed in the cited prior art documents. Thus, the requirements of Art. 33(2) PCT are met for claims 1-14..  
  
D1 discloses the addition of an antioxidant during primary tea processing in order to improve the tea quality. The tea processing as such is not disclosed and when the antioxidant is added.  
D2 discloses the addition of ascorbic acid to CTC cuts prior to fermentation, during and after fermentation (example). Other substances can be used (dehydroascorbic acid, 1-sorbamic acid, 5-phenyl-3,4-diketo-gamma-butyrolactone) in order to render black tea leaves infusible or extractable in cold water (see claims). It is not disclosed how the compound is added to the leaves. The prevention of an off flavour is thus not disclosed in D2.
4. Inventive step  
The process of the present invention is not derivable in an obvious way from the cited prior art documents, taken either alone or in combination. Thus, the subject-matter of claims 1-14 meets the requirements of Art. 33(3) PCT.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/IB 02/05462

From D1, the skilled person could derive that the addition of food acid antioxidant during tea processing will improve the tea quality in general. D1 therefore aims in the same direction as the invention does. D2 has most of the process steps in common. The skilled person could deduct from the combined teaching of D1 and D2 that during the processing as disclosed in D2 the tea quality could be improved. The skilled person however has no hints that the addition of the antioxidant on the fermented CTC tea material will prevent the development of pacha-taint, a very specific off flavour of CTC tea.

**5. Industrial applicability**

The subject-matter of claims 1-14 meets the requirements of Art. 33(4) PCT.

**6. Remarks**

- 6.1 In claim 1, the process steps are characterized by steps a-d, in the dependent claims by steps I-iv causing conflicts with Art. 6 PCT.
- 6.2 Claim 13 is related to a process claim but appears to be worded as being related to a product "wherein the CTC tea obtained is devoid of pacha-taint when stored up to 10 weeks". Problems regarding Art. 6 PCT could arise.
- 6.3 Contrary to Rules 7 and 11.10a) PCT the description contains a drawing (scheme 1 on p. 4).